

**A Beginner’s Guide to Live Remote Skills Training**

* ***by the NBN VET Together Project Team***

This is intended to be a resources checklist and basic guide that will assist VET providers to get started in low cost skills-based training via live remote video streaming. This model works when the participant and teacher are indoors and are more or less stationary.

There are several hardware and software combinations that may achieve this outcome – here’s what worked for us:

We used *Vidyo* <http://www.vidyo.com/>, which is a personal tele-presence system that allows several users to communicate live. Combining this product with the NBN worked very well for our project. *Vidyo* adjusts the picture resolution to be as high as the bandwidth available allows. It can also be used on computers and mobile devices (smartphones and tablets, MS Windows, Mac and Android) for basic video conferencing.

With the NBN’s high bandwidth, we experienced brilliant resolution. We also decided on *Vidyo* because it allows our students to get started straight away, with any type of internet connection, building in capacity for constant and seamless improvement to the experience, as more and more users obtain access to superfast broadband during the NBN rollout.

Two cameras are set up to provide one general view of the participant and their immediate surroundings, and one dedicated view of what the participant is looking at. In our project, the trainers mainly needed to see what the students’ hands were doing. They were able to gain visual feedback from participants’ facial expressions and body language in the general view. We used this model for facilitating training in the use of a cash register and EFTPOS terminal, with a fine level of detail necessary for the participants to see the numbers on the keypads, read register receipts and distinguish between types of tender.

**Resources specific to the VET provider / teacher:**

* Access to a *Vidyo* router
* Minimum 27” display
* Appropriate cables

**Resources for each participant (teacher and learner):**

* Access to the internet - NBN connection is preferable. ADSL2+, AARNET and 4G work well too.
* Computer (desktop or notebook) with the following minimum specifications:
* Windows 7 or Macintosh OS 10.X or above
* 4Gb RAM
* Core I3
* 5Gb Free HDD Space
* 1.3mp Front Facing Camera
* USB2.0
* Internet Explorer 9, Google Chrome or Safari.
* Ethernet and wifi – NBN connection is preferable. ADSL2+, AARNET and 4G work well too. 3G will work reasonably well, but the picture quality will not match the other connection types and delays/lag can be experienced.
* 1 x Vidyo licence per device
* Vidyo software – download free from <http://www.vidyo.com/support/software-downloads/>
* 1 x Cordless monaural head set with microphone
* 1 x 1080p camera
* 1 x USB extension lead (3m)
* 1 x USB hub – to allow several USB devices to be plugged into devices with only one USB port. This may not be necessary – depends on the device.
* 1 x Elastic chest harness for camera

For the initial set up of this video conferencing session, we engaged the services of a *Vidyo*-trained IT consultant to provide us with some basic initial training, and to ensure that integrating the different cameras and audio devices went smoothly. This took approximately two hours, after which we had the capability and confidence to make simple adjustments throughout the session.

To get the High Definition camera to remain stable, we tucked the camera base into a GoPro “Chesty” harness, which is made from strong elastic and is adjustable. It would be quite easy to make something similar from Velcro tape if money was very tight.

With Vidyo software, the participant can see a small view of their own camera on the screen. This allows the learner to ensure that they are aiming their own camera at the right subject.

**Putting it into action – tips and tricks for VET providers**

* Always allow plenty of time to set up each new linkage, we allow about an hour lead-in, to make sure everything is running smoothly. When the trainer and learner become confident in the setup, 15 mins usually does the trick.
* Take plenty of time to think through each activity before you start – this is quite an intense training method- with little “down time” for teacher and learner. Shorter sessions, with clear end points work well.
* Allow time for learners to get to know one another and to move beyond the self-consciousness that comes with being able to see themselves on the screen.
* It is tempting to try and fill all the silences as a trainer. Try and remember that video conferencing is not a phone conversation. It is ok to have silence to allow learners to reflect and practice their skills.
* As with most teaching practice, try to end on a positive note. If this means stopping early, that’s ok. Particularly in the early stages, it is important to “quit while you’re ahead” to keep learners feeling positive and engaged.
* Practice the techniques and teaching activities with other team members before “going live” with real learners.
* Start with 1:1 sessions to allow learners to become familiar with live video streaming training.
* When more than two people are in a session, establish a protocol early to avoid frustrating communications. We use a ‘raised hand’ gesture for questions, ‘thumbs up’ for ‘I get it’ and ‘thumbs down’ for ‘I don’t get it’.
* The learners are usually more interested in the subject matter than the teaching method. Make an initial introduction to the live video streaming method, then move on to focusing on the content.
* It helps to keep a backup computer handy, as well as a backup internet connection (we keep a prepaid 3G wireless dongle at the ready for emergencies) – thankfully we haven’t had to use it yet!
* Make sure that you have a backup plan for times when the technology isn’t co-operating, to avoid wasting valuable lesson time. Our contingency was to use the telephone to direct the learners to an alternative activity in the Flexible Learning Strategy Toolboxes that related to the lesson that we were working on.
* Take the time to develop a basic level of troubleshooting skills so that small technological hiccups can be addressed with a minimum of fuss.
* Seek advice from experienced practitioners – there are many sources of support readily available. We started with the Skills Tasmania E-Learning Unit, and the networks rapidly grew from there.
* Most importantly, try and stay calm and positive as the hard work will quickly turn into new possibilities and good fun!

We hope that this Beginner’s guide proves useful to your organisation. Feel free to contact us if we can help. More detailed information, project reports and our contact details can be found at the

[NBN E-learning Wiki](http://nbne-learning.wikispaces.com/NBN+VET+Together)